

# Networked Markets and Relational Contracts

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**Abstract.** Empirical studies of commercial relationships between firms reveal that (i) suppliers encounter situations in which they can gain in the short run by acting opportunistically—for example, delivering a lower quality than promised after being paid; and (ii) good conduct is sustained not exclusively by formal contracts but through informal relationships and the expectation of future business. In such relationships, the need to offer each supplier a large enough share of future business to deter cheating limits the number of supply relationships each buyer can sustain. The market thus becomes networked, with trade restricted to durable relationships. We propose and analyze a simple dynamic model to examine the structure of such overlapping relational contracts in equilibrium. Due to exogenous stochastic shocks, suppliers are not always able to make good on their promises even if they wish to, and so links are constantly dissolving and new ones are forming to take their place. This induces a Markov process on networks. We study how the stationary distribution over networks depends on the parameters—most importantly, the value of trade and the probability of shocks. When the rate at which shocks hit increases, as might happen during an economic downturn, maintaining incentive compatibility with suppliers requires promising each more future business and this necessitates maintaining fewer relationships with suppliers. This results in a destruction of social capital, and even if the rate of shocks later returns to its former level, it can take considerable time for social capital to be rebuilt because of search frictions. This creates a novel way for shocks to be persistent. It also suggests new connections between the theory of relational contracting, on the one hand, and the macroeconomic analysis of recessions, on the other.

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